

**\*\*\*The Federal Register should be consulted for official public information on applicability and other requirements of NESHAP-MACT standards.\*\*\***

NESHAP-MACT (PART 63) STANDARDS INITIALLY PROMULGATED  
MAY 1995 THROUGH MARCH 2000

- Notes: 1) NESHAP-MACT apply to new and existing sources unless noted otherwise.  
2) For the purposes of this table, a **major source** is a source with the potential to emit 10 or more tons per year (TPY) of a single federal hazardous air pollutant (HAP) or 25 or more TPY of a combination of HAPs.  
3) A NESHAP-MACT applicable to major sources may contain recordkeeping/applicability demonstration requirements for non-major sources to assure that such sources are not, and do not become, applicable.

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Subpart X-- Secondary Lead Smelting	6/23/95	Applies to all (including non-major) secondary lead smelters; however, non-major source secondary lead smelters have been deferred from Title V permitting until December 9, 2004  Does not apply to primary lead smelters, lead refiners, or lead remelters
Subpart CC-- Petroleum Refineries	8/18/95	Applies to major source petroleum refineries, including gasoline loading racks and marine tank vessel loading operations located at refinery plant sites
Subpart GG-- Aerospace Manufacturing and Rework Facilities	9/1/95	Affects coating(and depainting) operations at major source facilities engaged, either in whole or in part, in the manufacture/rework of commercial, civil, or military aerospace vehicles or components
Subpart Y-- Marine Vessel Loading/Unloading	9/19/95	MACT affects: all major source onshore loading terminals, new (startup after Sept. 20, 1999) non-major onshore loading terminals, and new (startup after Sept. 20, 1999) major source offshore loading terminals

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		<p>RACT affects all onshore and new (startup after Sept. 20, 1999) offshore loading terminals with annual throughput of 1.6 billion liters (10 M barrels) or more of gasoline or 32 billion liters (200 M barrels) or more of crude oil (see 63.561)</p> <p>See 63.560(d) for exemptions</p>
Subpart JJ-- Wood Furniture Manufacturing Operations	12/7/95	MACT affects major source facilities engaged, either in whole or in part, in the manufacture of wood furniture or wood furniture components - see 63.800(b) and (c) for exemptions
Subpart II-- Shipbuilding and Ship Repair (Surface Coating) Operations	12/15/95	<p>Applies to major source shipbuilding or ship repair facilities with surface coating operations using 1,000 liters (264 gallons) of marine coating annually</p> <p>Does not affect operations where coatings are applied with handheld, non-refillable aerosol containers or where coatings are unsaturated polyester resin (i.e., fiberglass lay-up)</p>
Subpart KK-- Printing and Publishing Industry	5/30/96	MACT applies to major source publication rotogravure, product and packaging rotogravure, or wide-web flexographic printing press operations
Part 68-- Accidental Release Prevention Requirements: Risk Management Programs Under the Clean Air Act Section 112(r)(7)	6/20/96	<p>Applies to stationary sources with a process in which the quantity of a listed substance is above the threshold specified in Part 68.130 (Jan. 31, 1994, FR 4478)</p> <p><b>Part 68.215(e) identifies specific responsibilities for Title V permitting authorities</b></p> <p><b>Parts 68.215(a) and 68.10(a) identify required conditions for Title V permits</b></p>

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Subpart DD-- Off-site Waste and Recovery Operations	7/1/96	<p>Applies to major source operations that handle HAP-containing hazardous waste, used oil, or used solvent generated off-site, specifically: 1) operations that are regulated under 40 CFR Part 264 or Part 265, 2) wastewater treatment facilities exempt under 40 CFR Part 264.1(g)(6) or 265.1(c)(10), 3) wastewater treatment facilities regulated under Section 402 or 307(b) of the Clean Water Act but not owned by a state or municipality, 4) wastewater treatment facilities where wastewater treatment is the predominant activity, 5) operation that recycle or reprocess hazardous waste and are exempt under 40 CFR Part 264.1(g)(2) or 265.1(e)(6), 6) operations that recycle or reprocess used solvent and are not otherwise regulated by Part 63, or 7) operations that refine or reprocess used oil and are regulated under 40 CFR Part 279 Subpart F - Standards for Used Oil Processors and Refiners</p> <p>Exempt waste: 1) household or residential waste, 2) radioactive mixed waste regulated under the Atomic Energy Act and the Nuclear Waste Policy Act, 3) waste generated from remedial activities at RCRA sources, 4) water used as ship ballast, or 5) waste from units regulated under the NESHAPs for Benzene Waste Operations or Synthetic Organic Chemical Manufacturing Industry</p>
Subpart U-- Group I Polymers and Resins	9/5/96  Revised 6/19/00	Applies to any major source elastomer product process unit (EPPU), or group of units, and associated equipment which manufactures one or more of the following as a primary product: butyl rubber, halobutyl rubber, epichlorohydrin elastomer, ethylene propylene rubber, Hypalon, neoprene, nitrile butadiens rubber, nitrile butadiene latex, polybutadiene rubber/styrene,

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		<p>butadiene rubber by solution, polysulfide rubber, styrene butadiene rubber by emulsion, or styrene butadiene latex. See Federal Register notice for determining applicability of a flexible operation unit (i.e., a unit which periodically manufactures different chemical products).</p> <p>Does not apply to research and development facilities nor to the following emission points at an EPPU: equipment that does not contain organic HAP; stormwater from segregated sewers; spills; water from safety showers or the testing of deluge or firefighting systems; vessels and equipment storing and/or handling material that contains no organic HAP or contains organic HAP as impurities only; and equipment intended to operate with organic HAP for less than 300 hours during the calendar year</p>
Subpart JJJ-- Group IV Polymers and Resins	9/12/96	<p>Applies to "thermoplastic product" production operations which use or produce organic HAPs and are major sources themselves or are located at major source plant sites</p> <p>"Thermoplastic products" include the following resins: acrylonitrile butadiene styrene, styrene acrylonitrile, methyl methacrylate acrylonitrile butadiene styrene, methyl methacrylate butadiene styrene, polystyrene, polyethylene terephthalate, and nitrile</p> <p>Does not affect: 1) research and development facilities, 2) equipment (located within thermoplastic production lines) that can be demonstrated not to use, process, or produce organic HAPs, 3) polymerization processes occurring in molds, 4) processes which manufacture binder systems containing thermoplastic products for paints, coatings, or</p>

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		adhesives, 5) finishing processes including compounding, spinning, drawing, and extruding, or 6) solid state polymerization processes
<p>Subpart B-- Regulations Governing Constructed or Reconstructed Major Sources</p> <p>(Final rule implementing Section 112(g) of the Federal Clean Air Act)</p>	12/27/96	<p>Applies to the following sources provided they are not already subject to, or exempt from, a promulgated MACT standard and provided they do not belong to a source category deleted from the source category list:</p> <ol style="list-style-type: none"> <li>1) A new major source constructed on an undeveloped (i.e., "greenfield") site,</li> <li>2) A new source (i.e., unit or process line) constructed at a developed site when such new source is a major source in and of itself, or</li> <li>3) A reconstructed source (i.e., unit or process line) when such source is a major source in and of itself and when replacement of components exceeds 50 percent of the fixed capital cost required to construct a comparable source</li> </ol> <p>Does not affect:</p> <ol style="list-style-type: none"> <li>1) Electric utility steam generating units - excluded pending a federal report on health hazards</li> <li>2) Research and development facilities - exempt</li> </ol> <p><b>By June 1998, each Title V permitting authority is required to:</b></p> <ol style="list-style-type: none"> <li><b>1) Adopt an implementation program for Subpart B,</b></li> <li><b>2) Notify the public of its program,</b></li> <li><b>3) Provide a written description of the program to the U.S. EPA, and</b></li> <li><b>4) Certify to the U.S. EPA that the program meets all of the requirements of the rule</b></li> </ol>
Subpart LL--Primary Aluminum Reduction Plants	10/7/97	Applies to primary aluminum reduction at major sources, specifically: new pitch storage tanks; and new or existing potlines, paste production plants, or anode bake furnaces

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		<p>Does not apply to anode bake furnaces located at a site other than a primary aluminum reduction plant</p> <p><b>No known facilities in California</b></p> <p>Owner/operator of potroom* group or anode bake furnace may comply with Subpart S of 40 CFR Part 60 (new source performance standard or “NSPS”) instead of MACT</p> <p>*a building unit that houses a group of electrolytic cells in which aluminum is produced</p>
Subpart S--Pulp and Paper Industry	4/15/98	<p>Applies to pulp, paper, or paperboard production processes at major sources</p> <p>At the same time the pulp and paper industry MACT was promulgated, the Clean Water Act Part 261 was amended to include discharge requirements for wastewater from pulp and paper production</p>
Subpart GGG--Pharmaceuticals Production	<p>9/21/98</p> <p>Revised: 8/29/00</p>	<p>At a facility that is a major source of HAPs, applies to any equipment used in the manufacture of any of the following pharmaceutical products (excluding nonreactive solvent, excipient, binder, filler, or other material subject to 40 CFR Part 63 Subparts F and G): any material described by standard industrial classification (SIC) code 2833 or 2834 or whose manufacturing process is described by the North American Industrial Classification System (NAICS) code 325411 or 325412; a finished dosage form of a drug, e.g., a tablet, capsule, solution, etc.; any active ingredient or precursor produced at a facility whose primary manufacturing operations are described by SIC code 2833 or 2834; or any material whose primary use is as an active ingredient or precursor.</p>

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		<p>Does not apply to research and development facilities</p> <p>Emissions limitations do not apply during startup, shutdown , or malfunction as set forth in Subpart GGG</p> <p>Affected source compliance with 40 CFR Parts 60, 264, 265, or other subparts of Part 63 is considered compliance with related Subpart GGG provisions, provided the intention to comply with a related requirement is identified in a Notification of Compliance Status pursuant to 40 CFR Part 63.1260(f)</p>
Subpart III--Flexible Polyurethane Foam Production	10/7/98	<p>Applies to each process which is a major source of flexible polyurethane foam or rebond foam production and which emits a HAP</p> <p>For the purposes of Subpart III, an “affected source” includes all of the processes mentioned above which are located at a contiguous plant site, with the exception of the following: Does not apply to:</p> <ol style="list-style-type: none"> <li>1) a process exclusively dedicated to the gluing, or otherwise bonding, of flexible polyurethane foam pieces;</li> <li>2) a research and development process; or</li> <li>3) a process(es) which exclusively produces or fabricates slabstock flexible polyurethane foam and which is the only HAP-emitting process(es) at the plant site, provided records verify that the total HAPs, excluding diisocyanate reactants, used for slabstock production or fabrication at the plant site does not exceed 5 tons per year</li> </ol>
Subpart XXX--Ferroalloys	5/20/99	Applies to major source ferromanganese and

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Production: Ferromanganese and Silicomanganese		silicomanganese production facilities  <b>No known facilities in California</b>
Subpart PPP--Polyether Polyols Production	6/1/99	Applies to major source polyether polyol or polyether mon-ol (e.g., ethylene oxide, propylene oxide, hexane, and toluene) production facilities  Does not apply to: 1) research and development facilities; 2) solvent reclamation, recovery, or recycling operations at hazardous waste treatment, storage, and disposal facilities subject to 40 CFR Part 270; or 3) reactions or processing that occur after epoxide polymerization and catalyst removal steps, if any, are complete
Subpart DDD--Mineral Wool Production	6/1/99	Applies to major source mineral wool production facilities, specifically cupolas* and curing ovens  *Cupolas are large metal vessels in which a mixture of rock, slag, and other secondary raw materials are heated to a molten state by the burning of fuel
Subpart TTT--Primary Lead Smelting	6/4/99	Applies to all (including non-major source) primary lead smelters  Does not apply to secondary lead smelters, remelters, or refineries subject to 40 CFR Part 63 Subpart X, Secondary Lead Smelting  <b>No known facilities in California</b>
Subpart AA--Phosphoric Acid Manufacturing Plants	6/10/99	Applies to major source phosphoric acid manufacturing plants  Does not apply to research and development facilities  <b>Any source at a facility with a current Title V</b>



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		<p><b>operating permit which is subject to, and in compliance with, Subpart AA is exempt from any otherwise applicable new source performance standard in 40 CFR Part 60 Subparts T or U, Phosphate Fertilizer Industry, or Subpart NN, Phosphate Rock Plants</b></p>
Subpart BB--Phosphate Fertilizers Production Plants	6/10/99	<p>Applies to major source phosphate fertilizer production plants</p> <p>Does not apply to facilities which are primarily engaged in the research and development of new processes and products under the close supervision of technically-trained personnel and which are not engaged in the commercial sale or other off-site distribution of products, except to a de minimis degree</p> <p><b>Any source at a facility with a current Title V operating permit which is subject to, and in compliance with, Subpart BB is exempt from any otherwise applicable new source performance standard for the phosphate fertilizer industry contained in 40 CFR Part 60 Subparts V, W, or X</b></p>
Subpart LLL--Portland Cement Manufacturing Industry	6/14/99	<p>Applies to all (including non-major source) portland cement plants</p> <p>Does not apply to: 1) any plant equipment used in the initial crushing/processing of non-metallic minerals which precedes raw material storage for the remainder of the portland cement production process; or 2) kilns and in-line kilns/raw mills which burn hazardous waste and are subject to 40 CFR Part 63 Subpart EEE (however Subpart LLL does apply to other affected sources at the plant which burn hazardous waste)</p>

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		<p>Note: the U.S. EPA intends to promulgate a separate rulemaking to regulate cement kiln dust storage facilities</p> <p><b>With the exception of kilns, in-line kilns/raw mills, and greenfield raw material dryers located at non-major facilities, any source at a facility subject to Subpart LLL is exempt from 40 CFR Part 60 Subpart F Standards of Performance for Portland Cement Plants</b></p> <p><b>Title V applies to all non-major portland cement plants subject to Subpart LLL</b></p>
Subpart NNN--Wool Fiberglass Manufacturing	6/14/99	<p>Applies to major source wool fiberglass manufacturing facilities</p> <p>Does not apply to facilities which manufacture mineral wool from rock, slag, and secondary raw materials and are subject to 40 CFR Part 63 Subpart DDD, Mineral Wool Production</p>
Subpart HH--Oil and Natural Gas Production	6/17/99	<p>Applies to oil and natural gas production facilities which: 1) process, upgrade, or store liquid hydrocarbons prior to transfer of custody, or natural gas prior to the point such gas enters the natural gas transmission and storage source category or is delivered to a final end user; and 2) are major sources of HAPs based on maximum natural gas or hydrocarbon throughput and maximum values of other parameters</p> <p>Maximum natural gas or hydrocarbon liquid throughput is:</p> <p>1) The highest annual throughput value over the five years prior to June 17, 1999 multiplied by a factor of 1.2; or</p> <p>2) For facilities documenting a throughput decline each year for the five years prior to June 17, 1999, the average of annual throughput values for</p>

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		<p>the three years prior to June 17, 1999 multiplied by a factor of 1.2</p> <p>Does not apply to a facility: 1) which does not contain at least one of the following: glycol dehydration unit, storage vessel with potential for flash emissions, natural gas processing equipment, compressors intended to contain or contact a fluid which is at least 10 percent by weight volatile HAP; 2) which exclusively processes, stores, or transfers black oil, a hydrocarbon liquid with an initial producing gas-to-oil ratio less than 0.31 cubic meters per liter and API gravity less than 40 degrees, including a black oil facility which uses natural gas for fuel or generates natural gas from black oil; or 3) which has a facility-wide annual average natural gas throughput less than 18.4 thousand standard cubic meters per day and hydrocarbon liquid throughput less than 39,700 liters per day prior to the point of custody transfer</p>
Subpart HHH--Natural Gas Transmission and Storage Facilities	6/17/99	<p>Applies to major source natural gas transmission and storage facilities that transport or store natural gas prior to entering the pipeline to a local distribution company or end user</p> <p>As set forth in Subpart HHH, calculation of HAP potential to emit should be based upon maximum natural gas throughput as set forth in Subpart HHH</p>
Subpart CCC--Steel Pickling - HCl Process Facilities and HCl Regeneration Plants	6/22/99	<p>Applies to major source: 1) steel pickling facilities that pickle carbon steel using a solution with a temperature of at least 100 degrees F and containing at least six percent by weight HCl; or 2) HCl regeneration plants</p> <p>Does not apply to facilities which: 1) do not use HCl for pickling; 2) pickle only specialty steel; or 3) do not regenerate HCl</p>
Subpart MMM--Pesticide	6/23/99	Applies to major source pesticide active

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Active Ingredient Production		<p>ingredient (PAI) manufacturing plants</p> <p>Does not apply to: 1) research and development facilities; 2) PAI processing units subject to 40 CFR Part 63 Subpart F, Synthetic Organic Chemical Manufacturing; or 3) the production of ethylene</p> <p>Where applicability to Subpart MMM overlaps with that of other federal standards (e.g., other NESHAPs, RCRA, or new source performance standards), the owner/operator may elect to comply with either Subpart MMM or the other standard, provided the other standard is consistent with Subpart MMM [see 40 CFR Part 63.1360 (i)]</p>
<p>Subpart YY-- Generic MACT Standards</p> <p>Note: generic MACT standards are structured to allow different source categories which have similar emissions points and MACT requirements and few affected facilities to be regulated under one subpart</p> <p>Subpart YY references requirements in:  Subpart SS--Closed Vent Systems, Control Devices, Recovery Devices, and Routing to a Fuel Gas System or a Process;  Subpart TT--Equipment Leaks - Control Level 1;  Subpart UU--Equipment</p>	6/29/99	<p>Applies to major source plants which:</p> <ul style="list-style-type: none"> <li>a) produce acetal resin, acrylic and modacrylic fibers, or polycarbonate; or</li> <li>b) produce and recover hydrogen fluoride by reacting calcium chloride with sulfuric acid (except where gaseous hydrogen fluoride is not produced or recovered as an intermediate or final product prior to reacting directly with hydrated aluminum to form aluminum fluoride)</li> </ul>

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Leaks - Control Level 2; and Subpart WW--Storage Vessels (Tanks) - Control Level 2		
Subpart EEE--Hazardous Waste Combustors	9/30/99	<p>Applies to all (including non-major) hazardous waste combustors, i.e.: hazardous waste incinerators and hazardous waste-burning cement and lightweight aggregate kilns</p> <p>Does not apply to hazardous waste combustors:</p> <p>1) which are no longer fed hazardous waste and which have no hazardous waste residing in their combustion chambers [see Table 1 to 40 CFR Part 62.1200*]; 2) which are operated solely for the purposes of research, development, or demonstration and for a timeperiod not exceeding one year after the initial burning of hazardous waste; or 3) where hazardous waste burning is limited to those wastes which are exempt from the Resource Conservation and Recovery Act (RCRA) [see 40 CFR Part 266.100(b)*]</p> <p>“Hazardous Waste” is defined in 40 CFR Part 261.3*</p> <p>* See <a href="http://www.access.gpo.gov/nara/cfr/cfr-retrieve.html#page1">http://www.access.gpo.gov/nara/cfr/cfr-retrieve.html#page1</a></p>
Subpart VVV--Publicly Owned Treatment Works	10/26/99	<p>Applies to any publicly owned treatment works (POTW) that is located at a major source of HAPs or accepts and treats a major industrial source waste stream regulated by a NESHAP other than Subpart VVV; however, facilities that are not required to develop a pretreatment program according to 40 CFR Part 403 are exempt</p> <p>Existing non-industrial POTWs have no Subpart VVV control, monitoring, recordkeeping, or</p>

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		<p>reporting requirements. New and reconstructed POTWs that process non-industrial wastewater are subject to: 1) Subpart VVV control requirements on treatment units up to, but not including, secondary treatment units; and 2) Subpart DD control requirements for covered units.</p> <p>Existing industrial POTWs are subject to the wastewater control requirements of other NESHAPs regulating the applicable industry. New or reconstructed industrial POTWs are subject to the most stringent overall new or reconstructed control requirements of: 1) another NESHAP(s) regulating the applicable industry; or 2) Subpart VVV non-industrial control requirements.</p>
Subpart OOO--Manufacture of Amino/Phenolic Resins	1/20/00	<p>Applies to major source plants which produce thermoset resins from the reaction of formaldehyde or a formaldehyde substitute with: 1) a compound containing the amino group, 2) phenol or a phenol substitute, or 3) both 1) and 2).* Substitutes for formaldehyde are exclusively aldehydes including: acetaldehyde and furfuraldehyde. Compounds which contain amino groups include: melamine, urea, and urea derivatives. Substitutes for phenol include: cresols, xylenols, p-tert-butylphenol, p-phenylphenol, nonylphenol, and resorcinols.</p> <p>* Note: An affected source at such a plant is described in detail in 40 CFR Part 63.1400</p>
Subpart RRR--Secondary Aluminum Production	3/23/00	<p>Applies to major and non-major facilities which use unprocessed furnace charge material containing aluminum (i.e. clean charge), post-consumer aluminum scrap, aluminum ingots, aluminum foundry returns, dross from aluminum production, or molten aluminum in one or more of the following processes: scrap drying/delacquering/decoating, scrap shredding,</p>

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		<p>thermal chip drying, furnace operations (i.e., melting, holding, refining, fluxing, or alloying), or dross cooling</p> <p>Does not apply to research and development facilities. Does not apply to aluminum die casting facilities, aluminum foundries and extrusion facilities that process no materials other than those generated within the facility or that process clean charge purchased or otherwise obtained from outside the facility, provided such facilities do not operate heat furnaces, thermal chip dryers, or scrap dryers/delacquering kilns/decoating kilns. On September 14, 2000, U.S. EPA proposed to remove aluminum foundry and die casting for applicability to Subpart RRR pending alternate rulemaking for such sources.</p> <p><b>Secondary aluminum production facilities which are non-major and not located at major sources may be deferred from Title V permitting until December 9, 2004</b></p>